## **CLAIMS**

1. An ion exchange material comprising a superabsorbent polyurethane foam having an ion exchange medium contained therein.

2. An ion exchange material according to claim 1 wherein the ion exchange medium is selected for sorking desired metal ions from a solution and/or slurry.

3. An ion exchange material according to either claim 1 or claim 2 wherein the ion exchange medium is in the form of a bead, resin, fibre, foam, liquid or other convenient form.

4. An ion exchange material according to any one of claims 1 to 3 wherein the ion exchange medium is in liquid form and is imbibed into a solid sorbent for embedding into the superabsorbent polygrethane foam.

5. An ion exchange material according to any one of claims 1 to 4 wherein the ion exchange medium is in the form of an emulsion or suspension for imbibing into the superabsorbent polyurethane

6. A process for the extraction of metal anions and cations from solutions and/or slurries including the steps of:

(a) contacting a metal ion-containing solution with an ion exchange material comprising a superabsorbent polyurethane foam having an ion exchange medium contained therein;

- (b) separating the ion exchange material from the solution and/or slurry; and
- (c) recovering the sorbed metal ions from the ion exchange medium.

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